

AMENDMENT(S) TO THE DRAWINGS

Please amend Figs. 1 and 2 as indicated in red on the attached Annotated Sheets.

Replacement Sheets presenting replacement figures which incorporate the desired changes are also enclosed in the Submitted Drawings section of this amendment.

Each sheet labels press felt 10, fibre 12, and polymer-batt fibre matrix 14.

REMARKS

Claims 1-42 are pending in this application. Claims 12-30 and 34-42 are rejected. Claims 12, 14, 16, 17, 19, 20, 22, 23, 26, 28, 29, 34-36, and 39-42 are amended; claims 1-11 and 31-33 are canceled; and claims 43-44 are added hereby.

Responsive to the restriction requirement in the Office Action dated April 15, 2008, Applicants hereby elect the invention recited in Group I, claims 12-30 and 34-42, drawn to a method of making an industrial fabric, in the above-identified application.

Responsive to the objection to claims 16, 17, 20, 23, 26, 29, and 39-42 for certain informalities, Applicants have amended claims 16, 17, 20, 23, 26, 29, and 39-42. Accordingly, Applicants submit that claims 16, 17, 20, 23, 26, 29, and 39-42 are now in condition for allowance.

Responsive to the rejection of claim 19 under 35 U.S.C. § 112, first paragraph, Applicants have amended “PVU” to polyurethane, which is “PU” as in the original claim 19 and in the Specification on page 8, line 19. Accordingly, Applicants submit that claim 19 is now in condition for allowance.

Responsive to the rejection of claims 12-30 and 34-42 under 35 U.S.C. § 112, second paragraph, Applicants respectfully traverse the rejection of claim 12 and amend claims 14, 16, 19, 22, and 36. Accordingly, Applicants submit that claims 12-30 and 34-42 are now in condition for allowance.

The Office Action at pages 5-6 makes the following grouping of claims relative to this rejection: claim 12; claims 14, 16, and 36; claim 19; and claim 22. Applicants address this rejection according to this grouping of claims. Regarding claim 12, Applicants respectfully disagree that “thermally activating” is unclear. The Specification at page 4, lines 3-4 (as well as original claim 7) provides that “thermal activation may comprise, for example, heating or

applying incident radiation.” In any event, claim 12 has been amended to provide that the “thermally activating” step causes the particulate polymeric material to soften such that it undergoes at least partial flow. As such, “thermally activating” is not unclear.

Regarding claims 14, 16, and 36, Applicants have added “the” in front of “polymeric material” to show that the polymeric material of claims 14, 16, and 36 is that of independent claim 12.

Regarding claim 19, Applicants have amended “PVU” to polyurethane, considering that “PU” (filed in the original claim 19) was mistakenly amended to “PVU” in the preliminary amendment and that “PU” refers to polyurethane. Further, “PVA” has been amended to polyvinyl acetate.

Regarding claim 22, “PU” has been amended to polyurethane. Further, “PA’s” has been amended to polyacrylate, which can be a thickening agent. Further, Applicants respectfully disagree with the indication in the Office Action at page 6 that what “based” modifies is unclear. Given that the phrase beginning with “based” immediately follows “strongly pseudo plastic types,” then “based” modifies “strongly pseudo plastic types”. Further, Applicants respectfully disagree with the indication in the Office Action at page 6 that “strongly” is unclear. Applicants submit that a person of ordinary skill in the art would understand this term in the context, particularly considering that the phrase in claim 22 beginning with “based” modifies “strongly pseudo plastic types”.

For the foregoing reasons, Applicants submit that claims 12-30 and 34-42 are now in condition for allowance, which is hereby respectfully requested.

Responsive to the rejection of claims 12, 13, 15, 30, 34, and 35 under 35 U.S.C. § 102(b) as being unpatentable over U.S. Patent No. 6,531,033 (Kawashima), and to the rejection of claims 12, 13, 15, 18-19, 27-30, and 34-35 under 35 U.S.C. § 102(b) as being unpatentable over U.S.

Patent No. 5,298,124 (Eklund et al.), Applicants have amended claim 12. Accordingly, Applicants submit that claim 12, and claims 13-30 and 34-42 depending therefrom, are now in condition for allowance.

Kawashima discloses a wet web transfer belt for a closed draw papermaking machine which is provided with a rough surface to allow easy release of a wet web. Transfer belt 1 includes a base layer 2 and a batt layer 3. Batt layer 3 is intertwined and integrated into base layer 2 by needle punching. A filler F is provided in batt layer 3, but only in the surface layer A thereof. A part of filler F is exposed, protruding from the surface which is adapted to carry a wet web. (Column 4, lines 26-32). Surface layer A is formed either substantially entirely of a meltable fiber, or of a mixture of a meltable fiber and a non-meltable fiber. (Column 4, lines 49-53). The meltable fibers may not be melted completely. (Column 5, lines 35-40). If surface layer A on side 3a is made of a mixture of a meltable and a non-meltable fiber, the non-meltable fiber remains as a fiber without melting even if heat is such that the meltable fiber melts completely. (Column 5, lines 41-44). When incorporating filler F into surface layer A, it is necessary to combine the meltable fiber with filler F before welding of the meltable fiber takes place. The filler can be dispersed in water, and the dispersion can be applied to the batt forming surface layer A. Alternatively, static electricity or a sieve may be employed. (Column 5, lines 15-23). Wet web contacting side 3a was sprayed with a dispersion of filler F in liquid so that filler F was included in a dispersed state within surface layer A. Then the side 3a was placed into contact with a press roll heated to 170C, and heat was conducted deep into the belt. (Side 3a could be heated by blowing hot air onto it). The meltable fiber was melted and welded by the heat, and became film-like to form a welded layer. (Column 7, lines 66-67, Column 8, lines 1-6)(see Fig. 6).

Eklund et al. discloses a transfer belt with a supporting base and a particle-filled polymer coating. Transfer belt 60 includes woven base 62, a fibrous web 76 needled to base 62, and a coating 80. Fig. 4 shows coating 80 on paper side 66 of base 62 and fibrous web 76 on back side 64 of base 62. Back side 64 of base 62 may also be provided with a polymeric resin coating, which may be of the same composition as that provided on the paper side 66. (Column 17, lines 3-5)(see also column 14, lines 30-33). The mixing of the components to produce the polymeric resin compositions for use as coating 80 may be carried out in an industrial mixer. (Column 15, lines 50-53). One of the components can be a particulate filler 82. (Column 14, lines 34-68; Column 15, lines 1-53). Coating 80 can be applied to base 62 using a blade-coating procedure. (Column 15, lines 59-60). Coating 80 can then be dried under infrared heaters. (Column 16, lines 6-9). The belt 60 should then be cured to ensure that the coating 80 adequately crosslinks to provide it with a positive mechanical interlock with the base 62. This positive mechanical interlock ensures that coating 80 will not delaminate during the use of transfer belt 60 on a papermachine. (Column 16, lines 12-17).

In contrast, claim 12, as amended, recites in part “applying a dispersion of particulate polymeric material to a batt of fibres, thermally activating the dispersion of particulate polymeric material and thereby softening the particulate polymeric material such that the particulate polymeric material undergoes at least partial flow and fuses to itself and to the batt of fibres; wherein the activated dispersion of particulate polymeric material results in a layer.” (Emphasis added). Applicant submits that such an invention is neither taught, disclosed or suggested by Kawashima and Eklund et al., or any of the other cited references, alone or in combination, and includes distinct advantages thereover.

While Kawashima discloses spraying filler F on side 3a so as to be dispersed within surface layer A and then melting, at least to some extent, the meltable fibers of surface layer A to

form the welded layer, Kawashima does not disclose melting filler F to fuse with itself and to the fibers of surface layer A. Kawashima thus fails to disclose thermally activating a dispersion of particulate polymeric material and thereby softening the particulate polymeric material such that the particulate polymeric material undergoes at least partial flow and fuses to itself and to a batt of fibres.

Further, Eklund et al. discloses that particles 82 are mixed with other components to form coating 80. Eklund et al. thus fails to disclose applying a “dispersion” of particles 82 to base 62. Further, Eklund et al. discloses heating coating 80 so as to dry coating 80 on base 62. That is, Eklund et al. discloses heating coating 80 to solidify coating 80. By contrast, claim 12 provides for heating the particulate polymeric material in order to at least partially liquify (soften so as to undergo flow) the particulate polymeric material. Eklund et al. thus fails to disclose heating particles 82 so that particles 82 soften and undergo flow and thereby fuse to themselves and to base 62.

An advantage of the present invention is that it provides a polymer/fiber matrix structure which remains permeable while improving surface smoothness, wear resistance, and compaction resistance.

For the foregoing reasons, Applicants submit that claim 12, and claims 13-30 and 34-42 depending therefrom, are now in condition for allowance, which is hereby respectfully requested.

Claims 14, 16, 17, 21-29, and 36-42 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Kawashima. However, claims 14, 16, 17, 21-29, and 36-42 depend from claim 12, which is in condition for allowance for the reasons given above. Accordingly, Applicants submit that claims 14, 16, 17, 21-29, and 36-42 are also now in condition for allowance, which is hereby respectfully requested.

Claims 14, 16, 17, 20-26, and 36-42 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Eklund et al. However, claims 14, 16, 17, 20-26, and 36-42 depend from claim 12, which is in condition for allowance for the reasons given above. Accordingly, Applicants submit that claims 14, 16, 17, 20-26, and 36-42 are also now in condition for allowance, which is hereby respectfully requested.

Responsive to the objection to the Specification for an informality, Applicants have added a line preceding the section describing the drawings which states “BRIEF DESCRIPTION OF THE DRAWINGS.”

Responsive to the objection to the drawings “because the figures are not labeled”, Figs. 1 and 2 have been labeled as noted above and a Detailed Description of the Invention has been added to indicate the meaning of the reference numbers in the drawings. The structures labeled in the drawings correspond to the Brief Description of the Drawings, to original claim 1, and to remaining portions of the Specification.

Claims 43-44 have been added to further protect the patentable subject matter of the present invention. Claim 43 recites in part “the step of thermally activating includes at least one of heating and applying incident radiation to the dispersion of particulate polymeric material.” (Emphasis added). None of the prior art references, alone or in combination, disclose or suggest this patentable feature. Claim 44 recites in part “the thermally activated dispersion of particulate polymeric material results in a discontinuous layer.” (Emphasis added). None of the prior art references, alone or in combination, disclose or suggest this patentable feature.

For the foregoing reasons, Applicants submit that the pending claims are definite and do particularly point out and distinctly claim the subject matter which Applicants regard as the invention. Moreover, Applicants submit that no combination of the cited references teaches, discloses or suggests the subject matter of the amended claims. The pending claims are therefore

in condition for allowance, and Applicants respectfully request withdrawal of all rejections and allowance of the claims.

In the event Applicants have overlooked the need for an extension of time, an additional extension of time, payment of fee, or additional payment of fee, Applicants hereby conditionally petition therefor and authorize that any charges be made to Deposit Account No. 20-0095, TAYLOR & AUST, P.C.

Should any question concerning any of the foregoing arise, the Examiner is invited to telephone the undersigned at (260) 897-3400.

Respectfully submitted,

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SUBMITTED DRAWINGS

Drawings that are being submitted include Replacement Sheets and Annotated Sheets, as indicated on the pages that follow.